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ALTA DEVICES, INC.

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

ALTA DEVICES, INC.,

Plaintiff,

v.

LG ELECTRONICS, INC.,

Defendant.

Case No.

**ALTA DEVICES, INC.'S COMPLAINT
FOR**

- 1. MISAPPROPRIATION OF TRADE
SECRETS IN VIOLATION OF THE
DTSA**
- 2. MISAPPROPRIATION OF TRADE
SECRETS IN VIOLATION OF CUTSA**
- 3. BREACH OF CONTRACT**
- 4. VIOLATION OF CAL. BUS. & PROF.
CODE SECTION 17200**
- 5. DECLARATORY JUDGMENT**

DEMAND FOR JURY TRIAL

Alta Devices, Inc. (“Plaintiff,” “Alta” or “Alta Devices”), by and through its undersigned attorneys, brings the following complaint against the Korean entity LG Electronics, Inc. (“Defendant” or “LG”), alleging as follows:

PARTIES

1. Plaintiff Alta Devices is a Delaware corporation engaged in the business of developing and designing components for green technology applications. Its principal place of business is in Sunnyvale, California.

2. On information and belief, Defendant LG is a corporation organized and existing under the laws of the Republic of Korea. Its principal place of business is in the city of Seoul, the Republic of Korea. On information and belief, LG employs 38,000 people in Korea with annual sales of approximately \$8.8 billion.

JURISDICTION

3. This Court has original subject matter jurisdiction for this action pursuant to the Defend Trade Secrets Act, 18 U.S.C. § 1836(c) and 28 U.S.C. § 1331. This Court has supplemental jurisdiction over the remaining claims asserted herein, pursuant to 28 U.S.C. § 1367. Further, the claims also give rise to diversity jurisdiction pursuant to 28 U.S.C. § 1332 because the amount in controversy exceeds the jurisdictional amount, and there is complete diversity of parties.

4. On or about June 13, 2011, Alta Devices and LG entered into a mutual non-disclosure agreement (“2011 NDA”), a true and correct copy of which is attached hereto as **Exhibit A** and incorporated by reference. Pursuant to the 2011 NDA, the parties agreed that the exclusive jurisdiction and venue would be the state courts for the State of California or the U.S. District Court for the Northern District of California. Further, this Court has personal jurisdiction over Defendant LG because LG knew that its intentional conduct potentially would have caused Alta Devices harm in this state.

5. Venue is also proper in this district pursuant to 28 U.S.C. §§ 1391(b) and 1400 because a substantial part of the events or omissions giving rise to the claims occurred in the Northern District of California.

INTRADISTRICT ASSIGNMENT

6. Pursuant to Civil Local Rule 3-2 (c) and (e), assignment to the San Jose Division is appropriate because Alta Devices maintains its factory and offices in Sunnyvale, California, and a substantial part of the acts or omissions giving rise to the claims occurred in Santa Clara County.

INTRODUCTION AND OVERVIEW OF CLAIMS

7. Throughout their professional careers, the founders of Alta Devices, Eli Yablonovitch and Harry Atwater, have studied Gallium Arsenide (“GaAs”) technology, Yablonovitch commencing his research in the 1970s.

8. Yablonovitch and Atwater founded Alta Devices in Silicon Valley in 2008 for the purpose of developing this technology into commercialized, high-volume thin GaAs solar film technology, which, with sufficiently high quality and low cost, could bring this technology to widespread commercial applications. Prior to the founding of Alta Devices, no other entity had attempted such commercialization of this technology, which had always been limited to specialized, expensive applications in space technology and other esoteric, expensive uses.

9. This technology promises to be truly disruptive when it can be economically sold to broad market sectors. Any device, from a cell phone to a drone to an automobile to a laptop computer, when coated with thin GaAs solar film, can be powered by this independent energy source.

10. Widespread use of such film would lessen society’s dependence on fossil fuels and environmentally-troublesome batteries, while saving money and promoting convenience and enhanced mobile device use for consumers. As of 2011, Alta had developed the world’s only known manufacturing processes for GaAs solar film that had advanced to the level of a demonstrative production line.

11. In 2011 and early 2012, Alta Devices, having already developed a demonstrative production line, was prepared to implement a small-scale production line with a capacity of 10MW, to be financed through a “Series D” investment offering, with plans to thereafter quickly increase scale to a large, commercially viable manufacturing facility which could produce the

1 thin-film device with quality, uniformity, and economic cost, first at a capacity of 40MW and
2 then at a capacity of 165MW.

3 12. In early 2012, knowing that Alta Devices was interested not only in a small-scale
4 production line, but also ultimately a large-scale commercial production facility with a joint
5 venture partner, LG claimed an interest not only in investing in the “Series D” offering of Alta
6 Devices, but also expressed interest in making that investment as a first step toward an eventual
7 joint venture production facility, in which the joint venture would license the technology from
8 Alta Devices.

9 13. Having expressed interest not only in a small-scale, \$5,000,000 “Series D”
10 investment in Alta Devices, but also in a potential future joint venture with Alta Devices for
11 large-scale manufacturing, LG conditioned its intent to make a non-binding “Series D”
12 investment on completing preliminary due diligence, which, because of the tentative four-phase
13 plan, involved due diligence as to the manufacturing processes of Alta.

14 14. Having already gained “Confidential Information” from Alta Devices after the
15 NDA’s execution on June 13, 2011, LG became convinced, based upon such information, that
16 Alta Devices’ technology was superior to that of any other alternative developing solar
17 technology and promised to be truly disruptive if commercialized. Accordingly, even before
18 making a tentative indication of an investment offer under the “Series D” offering, LG devised a
19 plan and scheme whereby, in the guise of considering this investment and future joint venture
20 participation, LG would gain descriptions of feasibility, tests, costs, manufacturing processes and
21 tools, techniques, bills of material, and tool utilization road maps, such that LG could gain the
22 benefits of years of Alta’s research and development, and develop its own manufacturing
23 facilities independent of Alta Devices, using misappropriated trade secret, Confidential
24 Information.

25 15. Accordingly, through the “due diligence” process of evaluating a potential
26 investment with Alta Devices under an NDA, LG gained sufficient highly technical information
27 from Alta Devices to enable LG to save years of expensive trial and error research and
28 development, while also ferreting out Alta Devices’ confidential plans for future improvement in

1 key areas, such that LG gained years of progress in moving toward an efficient stage of
2 manufacturing.

3 16. In short, prior even to making a tentative investment offering subject to due
4 diligence, but after receiving an initial presentation of Alta Devices' Confidential Information,
5 LG had developed and discussed a plan, in LG's own words, translated from Korean, "for LG in-
6 house development of Alta Device technology." The preliminary indication of a tentative
7 investment offer was designed to gain additional proprietary, trade secret and Confidential
8 Information from Alta additional to that Confidential Information it had already initially received
9 as a possible investor, under the NDA.

10 17. On information and belief, LG has already developed its manufacturing
11 capabilities, through use of Alta Devices' Confidential Information, to such a degree that it is
12 now selling very similar thin GaAs solar film to early adopters, while moving or having moved
13 toward full-scale, mass-commercialized economical production.

14 18. Alta Devices is further informed and believes that LG is marketing very similar
15 thin-film GaAs solar technology in competition with Alta Devices, claiming that it is offering the
16 same technology as Alta Devices at lower prices.

17 19. In short, LG, since at least late 2011 and early 2012, has planned to steal and
18 convert to its own use Alta Devices' technology, converting a large portion of the primary
19 intellectual property assets of Alta Devices.

20 20. With its vast capital and manufacturing resources, LG, one of the world's largest
21 electronics manufacturers, threatens to drive Alta Devices out of business before Alta Devices
22 can reach the stage of economical mass commercialization. Unless temporarily, preliminarily,
23 and permanently restrained from using and/or retaining Alta's proprietary, trade secret and
24 Confidential Information, Alta Devices will suffer irreparable injury and will not be able to
25 compete effectively.

26 21. Alta Devices' very existence is threatened by LG's blatant theft of trade secret,
27 Confidential Information.

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FACTUAL BACKGROUND**A. Alta Devices Develops Cutting Edge Green Technology.**

22. Prior to Alta's formation in 2008, it had long been known in solar materials research that GaAs had extremely favorable photovoltaic properties. But it was also known that the material was extremely difficult to fabricate into a useable thin solar cell, and because of the great cost of GaAs in fabricating a thicker solar device, it was thought to be practical only in expensive, thick device space applications. It was generally the state of the science prior to Alta's research that the thinnest solar cell that could be reliably be produced was approximately 25 mils, or 625 microns, thick, which was not considered a "thin" cell. At this thickness, a GaAs cell was also not flexible, was heavy, and therefore generally not useable on mobile devices. Moreover, at such thicknesses, GaAs solar cells were also extremely expensive, since GaAs was far more expensive than other competing solar film materials. Extremely thin GaAs solar cells were generally thought to be too weak, subject to breaking, not capable of flexible application, and incapable of being manufactured in commercially large lots, as opposed to one-off laboratory fabrication.

23. Because of these perceived problems in using GaAs for mass-produced, cost-effective solar cells, much research and efforts toward development of thin, flexible solar cells focused upon technologies and materials other than GaAs. These other technologies under development in the timeframe of 2008-2011 included numerous technologies involving silicon, far less expensive and easier to work with than GaAs. Other technologies involved such substances as CIGS and Cadmium Telluride, among others. Each of these technologies under development used less expensive materials than GaAs, but had achieved cell efficiency in laboratory conditions far lower than that of GaAs.

24. By and during the time period of 2010 through June 2011, there were numerous research and development projects worldwide seeking feasible thin-film alternatives to relatively thick and inflexible solar devices, which thicker devices had limited applications such as solar panels for roofs, usually made of silicon.

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1 25. A promising potential market was for that of thin solar cells that could be used on
2 mobile devices such as phones, laptops, and drones. However, as of June 2011, no practical,
3 cost-effective technology had yet been developed and brought to market, embodying such cost-
4 effective thin-film solar technology that could be used for mobile applications.

5 26. If an efficient thin-film solar cell could be commercially manufactured scalably
6 and reliably, such technology would be truly disruptive. Cell phones could be used with no or
7 rare recharge. A drone that otherwise could stay aloft for 1.5 hours would be able to fly for
8 approximately nine hours. The market was and is potentially great, with potential sales of many
9 billions of dollars annually.

10 27. One company seeking to develop commercially-feasible, mass-produced solar
11 technology for mobile applications was Alta Devices.

12 28. Well before founding Alta Devices in 2008, its founders Harry Atwater and Eli
13 Yablonovitch had spent their professional careers, since the 1970s for Yablonovitch, in research
14 regarding photovoltaic solar cells made from GaAs.

15 29. As of June 2011 through the 2012 time period, no one in the world with the
16 exception of Alta had come close to proving a commercially feasible method of high-volume,
17 low-cost manufacturing of thin-film GaAs solar cells with sufficient quality and cell efficiency to
18 be used in mobile applications. The techniques and methods of Alta's progress, and the proof of
19 the technology's viability, were unknown outside Alta, except as through disclosure under NDA.

20 30. In 2010 and 2011, Alta had developed thin-film solar GaAs cells which set world
21 records for efficiency as determined by the NREL, the National Research Energy Laboratory.
22 NREL measured its single-junction thin-film as possessing the world record in 2010 of 27.6%
23 efficiency. Since 2010, Alta Devices broke the world record for single-junction solar cell
24 efficiency four consecutive times, with an efficiency of 28.2% in 2011 and a later world record
25 of 28.8% efficiency.

26 31. While Alta's cell efficiency was widely known through NREL testing, what was
27 publicly unknown was, first, whether Alta could produce and had produced a reliably strong yet
28 flexible film capable of coating a mobile device, and whether its manufacturing technology had

1 progressed beyond the research and development phase. It was also publicly unknown what
2 techniques, if any, were being pursued by Alta to attempt to achieve cost-effective
3 manufacturing, and whether they showed potential for improvement to practical future
4 commercial feasibility.

5 32. In fact, by June 2011, Alta, staffed by approximately eighty employees, thirty of
6 them PhDs, had, by expensive trial and error research and development and the estimated
7 investment of over \$100,000,000, developed a complex manufacturing process which appeared
8 to be scalable to a large-volume manufacturing line, and had as well developed a detailed
9 business plan, including specific cost information, testing results, improvement plans, complex
10 tool roadmap, process flow, staffing patterns, and cost control schemes, all of which could be
11 shown to have a high likelihood of success in commercially feasible manufacturing. These
12 techniques, processes, and business and cost strategies were highly confidential, and based upon
13 years of confidential testing information.

14 33. Alta had also developed methods of making extremely thin solar cells strong
15 enough to be useful, and doing so at a promisingly high throughput and yield of uniform, high
16 quality, reliable material, both thin and flexible enough to be used as a coating on a number of
17 mobile devices. Alta also proved that this thin-film could have the ability to be stitched together
18 in modules of sufficient size to be used on large mobile applications without substantial loss of
19 efficiency.

20 34. The solar cell GaAs film itself was only one micron thick, much thinner than an
21 average human hair, which is approximately 40 microns thick. With backing on each side of the
22 GaAs film using other substances, the film could be produced which was only 9 or 10 microns
23 thick, while being both strong and flexible.

24 35. The structure of Alta's single-junction cell was disclosed in its patent
25 applications. However, the means of achieving cost-effective mass-production of the cell,
26 including the complex process flow, were not obvious, and involved years of trade secret,
27 Confidential Information derived through expensive and intensive research and development.

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36. By early 2011, knowing that it was on the verge of successful manufacturing processes, Alta sought funding to proceed from its pilot demonstration line to a small manufacturing line with a capacity of approximately 10 MW, with plans to then extend to an intermediate 40 MW capacity, soon to be followed by a full-scale 165 MW capacity line.

37. Accordingly, beginning in early 2011, Alta sought to obtain funding for its small 10 MW capacity line through a “Series D” investment offering. Part of its strategy to raise this money was to offer the possibility that an investor, hopefully a company with products or business models that would benefit from thin-film solar technology, could eventually partake in a joint venture in the full-scale manufacturing line that was the ultimate goal.

B. Pursuant to the 2011 NDA, Alta Devices Shares Trade Secrets and Other Proprietary and Confidential Information with LG.

38. One company that showed interest in this emerging manufacturing technology was LG, a South Korean company which, including its subsidiaries, was one of the world’s largest electronics manufacturers. Prior to June 2011, on information and belief, LG had not attempted development of thin-film GaAs solar cells.

39. In June 2011, LG had expressed an interest publicly in becoming involved in thin-film solar technology. Because LG was a manufacturer of a number of mobile electronic devices, Alta identified LG as a potential investor and joint venture partner in its future manufacturing operations.

40. In or around June 2011, Alta Devices and LG entered into discussions regarding a possible equity investment, joint venture, and/or other business opportunities.

41. Alta Devices and LG entered into the 2011 NDA on June 13, 2011. The 2011 NDA prohibited both parties from disclosing and/or using Confidential Information disclosed by the other party in connection with discussions regarding potential business opportunities.

42. The 2011 NDA defines “Confidential Information” as:

“[A]ny data or information that is proprietary to the disclosing party and not generally known to the public, whether in tangible or intangible form, whenever and however disclosed, including but not limited to: (a) any marketing strategies, plans, financial information, forecasts, or projections, operations, sales estimates, business plans and performance results relating to the past, present

or future business activities of such party, its affiliates, subsidiaries and affiliated companies; manufacturing partners, or manufacturing licensees; (b) plans for customers, products or services, and customer or supplier lists; (c) any scientific or technical information, inventions, designs, schematics, technical drawings, architectures and architectural concepts, composition of matter, processes, procedures, formulae, improvements, technologies, methods or other innovations; (d) any concepts, reports, data, know-how, works-in-progress, designs, development tools, specifications, computer software, source code, object code, flow charts, databases, information or trade secrets; (e) any other information that should reasonably be recognized as Confidential Information of the disclosing party; and (f) any summaries and analyses thereof prepared by the receiving party.... Confidential Information need not be novel, unique, patentable, copyrightable, or constitute a trade secret in order to be designated Confidential Information.”

(Exhibit A, p. 1, at § 1.)

43. The parties further acknowledged that “the Confidential Information is proprietary to the disclosing party, has been developed and obtained through great efforts and expense by the disclosing party, and that [the] disclosing party regards all of its Confidential Information as trade secrets.” (*Id.*)

44. To protect the value of the investment in the Confidential Information, Section 3 restricts use of the Confidential Information to use in consideration of discussions regarding potential business activities among the parties:

The receiving party agrees to use the Confidential Information solely in connection with the current or contemplated business relationship between the parties and not for any purpose other than as authorized by this Agreement without the prior written consent of an authorized representative of the other party. Further, the receiving party agrees not to reverse engineer, decompile, or disassemble any Confidential Information. No other right or license, whether expressed or implied, in the Confidential Information is granted to the receiving party. Title to the Confidential Information will remain solely in the disclosing party. All use of the Confidential Information by the receiving party shall be for the benefit of the disclosing party and any modifications and improvements thereof (e.g., summaries and analyses thereof) by the receiving party shall be the sole property of the disclosing party.

(Exhibit A, at p. 1.)

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45. Two terms are covered under Section 5 of the 2011 NDA: the time for the parties' disclosure of Confidential Information (one year from the effective date) and the duration of the duty to hold in confidence the Confidential Information disclosed (three years after expiration). (**Exhibit A**, p. 1, at § 5.) At the end of three years, if not before, all Confidential Information must be returned to the disclosing party, or, with the permission of the disclosing party, destroyed.

46. The 2011 NDA further provides in Section 6 that upon the request of the disclosing party, the [r]eceiving party shall immediately return and redeliver to the disclosing party, all tangible material embodying the Confidential Information provided hereunder, and all notes, summaries, memoranda, drawings, manuals, records, excepts [sic], or derivative information derived therefrom, and all other documents or materials ('Notes') (and all copies of any of the foregoing, including but not limited to 'copies' that have been converted to computerized media in the form of image, data, or word processing files either manually or by image capture) based on or including any Confidential Information, in whatever form of storage or retrieval, upon the earlier of (i) the completion or termination of the dealings between the parties contemplated hereunder; (ii) the termination of this Agreement; or (iii) at such time as the disclosing party may so request...

(**Exhibit A**, p. 1, at § 6.)

47. The parties also agreed in Section 8 of the 2011 NDA, the parties agreed that in the event of a breach by the receiving party, the disclosing party would be entitled to injunctive relief. (**Exhibit A**, p. 2, at § 8.)

48. Annexed to the 2011 NDA as "Appendix A" is a schedule describing the type of Confidential Information contemplated under the agreement.¹ This schedule described Confidential Information as follows:

- 1) CVD technology and its commercial viability
 - CVD (Alta 2T) chamber scheme
 - growth rate

¹ On or about September 3, 2014, the parties entered into a second, separate non-disclosure agreement (the "2014 NDA") regarding disclosure of a defined subset of technology. The scope of the 2014 NDA was limited to testing the feasibility of efficient GaAs solar cell technology and materials for mobile devices. The Confidential Information disclosed pursuant to the 2014 NDA is not the subject of the claims herein.

- thin film quality
 - uniformity
 - gas utilization efficiency
 - scalability and short cycle time feasibility
- 2) ELO technology and wafer reusability
 - ELO reproducibility for 100x100mm² samples
 - GaAs reusability data (actual and estimate)
 - 3) Cell technology that resulted in 26.8% efficiency
 - device structure (e.g. thin film structure, passivation, anti-reflection coating, surface texturing)
 - efficiency distribution per process batch
 - 4) Quality control method
 - film quality
 - ELO quality
 - device characteristics (e.g. efficiency, reliability)
 - 5) LCOE estimate basis
 - lifetime
 - yield
 - GaAs reusability
 - throughput

(**Exhibit A**, at p. 3, Appendix A.)

49. Confidential Information described to LG under Appendix A as noted in the Appendix, “may be incomplete, is for convenience only, and no inference shall be drawn from non-inclusion.” (**Exhibit A**, at p. 3, Appendix A.)

50. Prior to October 31, 2011, LG had already gained under the 2011 NDA information showing the financial and technical feasibility of the mass-production of Alta Devices’ solar film technology, testing information, and plans for improvement, as well as other Confidential Information. Becoming convinced of the technical superiority of Alta Devices’ technology and its commercial feasibility, LG sought to learn more details about how to develop this same technology in-house to the exclusion of Alta Devices, effectively misappropriating Alta Devices’ trade secret, Confidential Information. LG gained additional Confidential Information by a visit of LG to Alta on October 31, 2011. By November 7, 2011, LG intentionally began to plan how to develop in-house Alta’s technology.

51. Knowing that it could obtain more trade secret Confidential Information from Alta if it showed itself to be an interested potential long-term investor, a representative of LG wrote Alta’s representatives, expressing LG’s intention not only to invest in the presently offered

1 “Series D” investment, but also to invest in advancing stages of participation, up to forming a
2 large-scale, commercially competitive manufacturing joint venture, where LG would pay license
3 fees to Alta. On February 11, 2012, Sung Han, a representative of LG, wrote to Wen Hsieh, a
4 venture capital representative of Alta, and stated LG’s four-phase intent to ultimately invest in a
5 joint venture with Alta:

6 “Phase 1: Post non-binding Due Diligence, they will invest \$5 million

7 Phase 2: LGE/Alta collaborate on technology development and high-volume
8 production readiness

9 Phase 3: Production JV with place, capacity and total investment to be determined
10 during phase 2

11 Phase 4: Distribution and sales collaboration”

12 A true and correct copy of Sung Han’s February 11, 2012 e-mail to Wen Hsieh is attached hereto
13 as **Exhibit B** and incorporated by reference.

14 52. In February 2012, up through February 25, 2012, having already gained
15 substantial Confidential Information under the 2011 NDA about both business and technical
16 aspects of the Alta Devices manufacturing process, and Alta Devices’ progress and proof of
17 concepts and techniques in a number of key manufacturing and business metrics, LG now sought
18 and received, based upon its tentative non-binding investment indication for “Series D”, and its
19 suggestion of greater future investment in a joint venture, more detailed information about the
20 techniques and processes involved in the actual manufacturing of the solar film developed by
21 Alta Devices. LG’s motive in so doing was to gain more technical manufacturing knowledge
22 such that it could begin its own in-house development of Alta Devices’ technology, taking
23 advantage of years of Alta Devices’ experience, by learning more details of the proven
24 manufacturing process.

25 53. Accordingly, on February 25, 2012, as part of a “Q and A” (question and
26 answer) process, Alta revealed additional Confidential Information to LG useful to LG in its plan
27 to develop thin-film solar manufacturing independent of Alta.

28 ///

1 54. Based upon Confidential Information received from Alta Devices by LG, LG
2 gained substantial business and technical information relating to the manufacturing process for
3 thin-film GaAs solar cells to enable it to progress toward commercial production far more
4 quickly than it otherwise would have been able on its own, if at all; perhaps more importantly, it
5 gained from Alta information proving that the manufacturing process it had developed was
6 feasible commercially, and that Alta's plans for improvement were as well feasible and borne out
7 by Alta's confidential metrics and test results; and that therefore, using Alta's template, LG
8 could safely invest in this technology.

9 55. The Confidential Information and trade secrets imparted by Alta to LG includes
10 Alta's methods of: high throughput thin-film deposition; epitaxial lift-off of the thin-film; and
11 GaAs substrate maintenance and re-use. It includes confidential cost analysis; proofs and tests of
12 manufacturing concepts and techniques; tool roadmaps; manufacturing process flows; and
13 identification of equipment and equipment vendors; and information related to the foregoing.

14 56. After extracting proprietary, trade secret and Confidential Information from Alta
15 Devices about its manufacturing processes, LG then declined to make binding its previous
16 indication of a tentative investment offer.

17 57. LG has breached the NDA by using the Confidential Information and trade secrets
18 in a manner not contemplated by the business relationship between Alta and LG and without the
19 consent of Alta; by using the same in its present manufacturing business; and by failing to return
20 to Alta all copies of Confidential Information all to Alta's damage.

21 58. Under Section 1 of the NDA, "summaries and analyses" prepared by LG based
22 upon the Confidential Information disclosed by Alta are themselves considered Confidential
23 Information owned by Alta as the disclosing party, and under Section 6 of the NDA, must be
24 returned to Alta as the disclosing party. (**Exhibit A**, p. 1, at §§ 1(f) and 6.)

25 59. In materials returned to Alta by LG as described below (all as translated into
26 English), LG, in its recent return of Confidential Information to Alta, appears to have redacted
27 summaries and analyses of Alta's Confidential Information on what appears to be Slide
28 LTR0000279 of November 7, 2011, Slide LTR0000238 of January 31, 2012, and Slide

1 LTR0000227 of February 2, 2012. They are blank and appear to have been redacted except for
2 the (translated) title: “Attachment: Review (plan) for LG in-house development of Alta Devices
3 Technology.” Slide LTR0000235, in a January 31, 2012 slide deck, appears to have been
4 redacted with a notation: “E-mail Report from Solar Business Officer (Jan. 31).”

5 60. The slide deck entitled “Summary Report on Technology Review (Alta
6 Devices)”, dated November 7, 2011, appears to have a redacted page, “Attachment: Review
7 history for Company A,” at Slide LTR0000281, and Slide LTR0000255 of the March 15, 2012
8 slide deck, also blank and redacted except for its (translated) title “Alta Device review history.”

9 61. A slide deck entitled: “Analysis of Alta Device Technology” dated March 15,
10 2012 contains what appears on Slide LTR0000251, a redacted portion under the heading “Our
11 company’s investment response (tentative).”

12 62. The January 31, 2012 slide deck entitled “Analysis of Alta Device Technology”
13 has apparent redaction at pages LTR0000236 under “Review History for Company A” and at
14 LTR0000237 under “Business Proposal (For internal discussion at LG).”

15 63. The foregoing redacted slides constitute summaries and/or analyses based upon
16 Confidential Information, and therefore themselves constitute Confidential Information. On
17 information and belief, Alta alleges that LG has withheld other Confidential Information, and
18 materials embodying same or derived therefrom, as more fully described in Section 6 of the
19 NDA.

20 64. In and around late 2013 and early 2014 posing as a company potentially interested
21 in purchasing GaAs thin-film for incorporation onto its manufactured mobile devices, LG sought
22 from Alta a sample of Alta’s GaAs thin-film for testing its “charging efficiency,” and received a
23 sample from Alta on or around January 28, 2014; whereas, on information and belief, LG sought
24 this material for technical analysis and/or reverse engineering to assist LG in further
25 development of its manufacturing process using previously obtained Alta Confidential
26 Information in competition with Alta. In and around June 2013, LG had previously requested
27 and received samples supposedly in order to evaluate potential investment in Alta. On
28 information and belief, LG used these samples for reverse engineering and technical analysis to

aid its manufacturing development, building upon, using and incorporating Confidential Information already gained from Alta under the NDA, and doing so for a purpose not permitted and prohibited under the NDA.

C. Alta Devices Discovers that LG Has Misappropriated its Proprietary, Trade Secrets and Confidential Information.

65. In or around mid-2016, Alta Devices began learning of LG's misappropriation of Alta Devices' trade secrets. On information and belief, only after Alta Devices shared its technology pursuant to the 2011 NDA, LG began pursuing in-house development of the same technology as Alta Devices and did so by employing similar manufacturing processes that Alta Devices pioneered and disclosed to LG during the parties' interactions relating to the 2011 NDA.

66. Among other acts, Alta Devices learned that LG submitted an article published in connection with the June 2016 32nd European Photovoltaic Solar Energy Conference ("EUPVSEC") that describes a structure using a graded layer just like the one used by Alta Devices, suggesting that LG had been using similar manufacturing techniques that were the result of misappropriation of Alta's proprietary, trade secret and Confidential Information as provided under the 2011 NDA.

67. Alta Devices also learned that LG published another article, also in June 2016, in Solar Energy Materials and Solar Cells that also describes a structure using a graded layer like the one used by Alta Devices.

68. In or around August 2016, a patent application titled "Metal organic chemical vapor deposition apparatus for solar cell" and filed by LG was published. The application covers technology similar to Alta Devices' high-throughput MOCVD system. Although not identical to the MOCVD tool Alta had confidentially shown under the 2011 NDA to LG, the tool appears to incorporate similar aspects of the Alta MOCVD tool, and the process flow of Alta, and therefore based upon Alta proprietary, trade secret and Confidential Information.

69. On information and belief, LG had not previously applied for a patent in the United States for technology covering a MOCVD system.

70. Numerous claims in LG's patent application bear striking similarities to Alta

1 Devices' technology, including in the manner that Alta Devices' technology represents a
2 departure from conventional methods and processes typically used in manufacturing in other
3 technology sectors.

4 71. Additionally, Alta Devices learned of an LG poster (the "PVSEC Poster") that
5 describes a solar cell structure that is similar to a proprietary Alta Devices product and suggests
6 manufacturing techniques that implicate Alta Devices' intellectual property.

7 72. As recently as 2017, a conference program of 2017's EUPVSEC articles includes
8 an upcoming article from LG on a high-throughput MOCVD system for making GaAs-based
9 solar cells.

10 73. Because Alta Devices had previously shared Confidential Information with LG
11 pursuant to the 2011 NDA, Alta Devices was concerned that LG had misappropriated and was,
12 and/or is still, exploiting Alta Devices' intellectual property with neither a license nor Alta
13 Devices' consent.

14 74. On or about August 23, 2016, Alta Devices sent LG a letter notifying LG that it
15 had learned information that appears to indicate that LG is developing and/or manufacturing a
16 solar cell structure that is very similar to a proprietary Alta product. The cell structure is not just
17 similar, but appears to show that LG's solar cell manufacturing uses techniques similar to Alta's
18 intellectual property." A true and correct copy of the August 23, 2016 letter is attached hereto as
19 **Exhibit C** and incorporated by reference. The August 23, 2016 letter further advised LG that
20 such unauthorized use of Confidential Information disclosed pursuant to the applicable non-
21 disclosure agreements would give rise to a claim for trade secret misappropriation.

22 75. To further investigate this alarming evidence of LG's misconduct, Alta Devices
23 requested in the August 23, 2016 letter that "LG provide to Alta assurance in writing that it has
24 taken all necessary measures to prevent any encroachment on Alta's intellectual property rights.
25 If such assurances are not forthcoming, it may be construed as evidence of LG's admission of
26 violation of, or intent to violate, Alta's intellectual property rights." (**Exhibit C**, at p. 1.)

27 76. LG failed to provide satisfactory assurances that Alta Devices' trade secrets had
28 not been misappropriated.

1 77. In addition, LG merely returned *some* – but not nearly all – of the Confidential
2 Information it received. LG’s production of Alta’s documents consisted of many LG-branded
3 documents that appeared to be presentations summarizing the results of LG’s testing, analysis,
4 use and study of Alta’s Confidential Information. Absent from LG’s production was any
5 underlying testing, analysis, use or study.

6 **D. LG Admits to Alta Devices That It Breached the 2011 NDA.**

7 78. On October 18, 2016, Alta Devices sent LG yet another letter, enclosing the
8 August 23, 2016 letter which had been returned to Alta Devices as undeliverable. A true and
9 correct copy of the October 18, 2016 letter is attached hereto as **Exhibit D** and incorporated by
10 reference.

11 79. By letter dated November 26, 2016, LG acknowledged receipt of the October 18,
12 2016 letter. A true and correct copy of the November 26, 2016 letter is attached hereto as
13 **Exhibit E** and incorporated by reference. Silent as to Alta Devices’ trade secrets specifically,
14 LG responded that it had never used Alta Devices’ Confidential Information received pursuant to
15 the 2011 NDA for any other purpose other than for the purpose agreed in the 2011 NDA.

16 80. Even more troubling, LG admitted it was in possession of documents received
17 from Alta Devices pursuant to the 2011 NDA despite clear obligations for LG to return
18 Confidential Information to Alta Devices. (*See Exhibit E.*) Under the 2011 NDA, LG was
19 obligated to: “immediately return and redeliver [Confidential Information] to the disclosing
20 party. . . upon the earlier of (i) the completion or termination of the dealings between the parties
21 contemplated hereunder; (ii) the termination of this Agreement; or (iii) at such time as the
22 disclosing party may so request.” (**Exhibit A**, p. 1 at § 6.) Under the 2011 NDA, LG was
23 obligated to: “immediately return and redeliver [Confidential Information] to the disclosing
24 party. . . upon the earlier of (i) the completion or termination of the dealings between the parties
25 contemplated hereunder; (ii) the termination of this Agreement; or (iii) at such time as the
26 disclosing party may so request.” (**Exhibit A**, p. 1, at § 6.)

27 81. The dealings between Alta Devices and LG under the 2011 NDA completed and
28 terminated pursuant to the terms of that agreement, and Alta Devices, as the disclosing party, so

1 requested that LG return and redeliver Alta Devices' Confidential Information, triggering all
2 three scenarios in which LG has an obligation to "immediately return and redeliver" Alta
3 Devices' Confidential Information. (*Id.*)

4 82. In light of its contractual obligations, LG admitted in its November 2016 letter
5 that it failed to abide by its commitments. (*See Exhibit E*, at p. 1.)

6 83. On January 9, 2017, Alta Devices sent LG a letter outlining Alta Devices'
7 consternation regarding LG's breach of its contractual obligations. A true and correct copy of
8 the January 9, 2017 letter is attached hereto as **Exhibit F** and incorporated by reference. Alta
9 Devices demanded that LG immediately return to Alta Devices its Confidential Information and
10 any information that LG derived from Alta Devices' Confidential Information as well as any
11 electronic media relating to Alta Devices' Confidential Information.

12 84. By letter dated February 9, 2017, LG acknowledged receipt of Alta Devices'
13 January 9, 2017 letter. A true and correct copy of the February 9, 2017 letter is attached hereto
14 as **Exhibit G** and incorporated by reference. LG did not dispute Alta Devices' claim that LG
15 was under an obligation to return certain Alta Devices' Confidential Information under the 2011
16 NDA.

17 85. Instead, LG noted that the 2011 NDA provided an option for LG to destroy
18 Confidential Information in its possession. But, in order to be entitled to elect that option, LG
19 must have *first* obtained Alta Devices' written consent. (*See Exhibit A*, p. 1, at § 6; *see also*
20 **Exhibit G**, at p. 1.) Alta Devices never gave its consent in any form and LG, to date, has never
21 asserted that any consent was ever given.

22 86. LG stated that, "in the spirit of cooperation and good faith," it would "return and
23 share with [Alta] all the documents and samples, including Notes, that were received and
24 developed in the process of discussions with Alta." (**Exhibit G**, at p. 1.) However, LG merely
25 returned *some*—but not nearly all—of the Confidential Information it received. LG's production
26 of Alta Devices' documents consisted of many LG-branded documents that appeared to be
27 presentations summarizing the results of LG's testing, analysis, use and study of Alta Devices'
28

1 Confidential Information. Absent from LG's production was any underlying testing, analysis,
2 use or study.

3 87. LG also revealed that it "unintentionally discarded" two (2) of the five (5)
4 samples it had previously claimed to have in its possession. (**Exhibit G**, at p. 1; *see also* **Exhibit**
5 **E**, at p. 1.)

6 88. On February 16, 2017, Alta Devices informed and explained to LG that its
7 representation that it has returned "all" materials, including Notes, was inherently unreliable, its
8 redactions were questionable, and that its representations were unverifiable because the materials
9 in its production were in Korean. A true and correct copy of the February 16, 2017 letter is
10 attached hereto as **Exhibit H** and incorporated by reference. Alta Devices requested that LG:
11 (1) confirm that it had returned all materials that LG was obligated to return under the 2011
12 NDA or notify Alta Devices of the types of document that remained to be collected and their
13 expected delivery date; (2) identify the number of pages withheld from return, the documents
14 that were returned that contain redactions, the nature of the material redacted, and explain why
15 materials regarding Alta Devices' Confidential Information contain ancillary information "not
16 privy to Alta"; and (3) provide Alta Devices with a control set of identical materials in English.
17 (**Exhibit H**, at pp. 1-2.)

18 89. By letter dated April 11, 2017, LG, through counsel for the first time,
19 acknowledged receipt of Alta Devices' February 16, 2017 letter. A true and correct copy of the
20 April 11, 2017 letter is attached hereto as **Exhibit I** and incorporated by reference. In response
21 to Alta Devices' requests in its February 16, 2017 letter, LG maintained that they "not only
22 impose an undue burden on LGE but also exceed the extent that is necessary for protecting
23 Alta's legitimate intellectual property rights." Accordingly, LG refused to fulfill Alta Devices'
24 requests made in its February 16, 2017 letter. In so doing, LG breached its obligations under the
25 2011 NDA.

26
27
28 ///

E. LG's Use of Alta Devices' Trade Secrets Has Diminished and May Destroy the Market for Alta's Proprietary Product.

90. The potential market for cost-effective thin-film solar devices is thought to be as high as in excess of \$100 billion annually worldwide.

91. On information and belief, as of last year, LG's market capitalization was \$8.8 billion. It is a global leader in the production of consumer electronics, and its manufacturing and distribution channels far exceed Alta's. As a result, LG's entrance into the market with a competing product – manufactured using Alta Devices' trade secrets and Confidential Information – will/has delivered a devastating blow to Alta Devices' opportunities to market and sell its proprietary product.

92. Alta Devices will suffer great irreparable harm to its market share in the solar cell market if LG is not enjoined from producing a competing product manufactured using Alta Devices' trade secrets, and if not required to return all copies of Confidential Information.

FIRST CAUSE OF ACTION

**Misappropriation of Trade Secrets in Violation of the Defend Trade Secrets Act
(18 U.S.C. § 1836, et seq.)**

93. Plaintiff incorporates by reference as though fully set forth herein the proceeding allegations of this Complaint.

94. Plaintiff owned and possessed certain proprietary, trade secret and Confidential Information, as alleged above.

95. Information comprising Alta Devices' trade secrets include the items listed in Appendix A to the 2011 NDA, reflected in paragraphs 14, 48, and 55 above, including as to these areas of Confidential Information, information related to the Appendix A areas, such as industrial organization of the manufacturing process; manufacturing process flow; proof of manufacturing concepts; cost calculations; manpower task organization; plans for improvement for stages of the manufacturing process; standard operating procedures; test data; reports (e.g., metrics); equipment drawings; and tool roadmaps; equipment concepts and vendors; and methods of high-throughput MOCVD deposition; epitaxial lift-off ("ELO"); and substrate maintenance and re-use.

1 96. This proprietary, trade secret and Confidential Information relates to products,
2 services used, sold, shipped and ordered in, or intended to be used, sold, shipped and/or ordered
3 in interstate or foreign commerce.

4 97. On information and belief, the proprietary, trade secret and Confidential
5 Information taken and used by Defendant LG constitutes trade secrets as defined in the Defend
6 Trade Secrets Act, 18 U.S.C. § 1836, *et seq.*

7 98. On information and belief, Defendant LG has misappropriated and threatens to
8 further misappropriate Alta Devices' trade secrets by both selling devices manufactured using
9 Alta's proprietary, trade secret and Confidential Information, and by claiming as its own
10 intellectual property devices and processes developed using such information. The information
11 contained in these materials derives substantial independent economic value by not being
12 generally known the to the public, and specifically by not being known to Alta Devices'
13 competitors. The information is not generally known within the industry and represents years of
14 research and development. Alta Devices undertakes all reasonable efforts to maintain the
15 secrecy of its trade secrets and protect Confidential Information from disclosure, including but
16 not limited to use of non-disclosure agreements.

17 99. Defendant LG's misappropriation of the proprietary, trade secret and Confidential
18 Information was intentional, knowing, willful, malicious, fraudulent, and oppressive.

19 100. As a direct and proximate result of Defendant LG's unlawful, tortious conduct,
20 Alta Devices has been damaged and Defendant LG has been unjustly enriched. This unjust
21 enrichment includes value and profits attributed to the misappropriated information, including
22 amounts Defendant LG saved in research and development costs by using the misappropriated
23 information and increased productivity from the use of the misappropriated information.

24 101. Defendant LG's conduct and continued use of Alta Devices' trade secrets has
25 caused, and unless enjoined by the Court, will continue to cause, great and irreparable harm and
26 injury to Alta. Alta Devices has no other adequate remedy at law for such acts and threatened
27 acts. Alta, therefore, requests that during the pendency of this action, the Court issue a
28 preliminary injunction, and that after trial, the Court issue a permanent injunction, restraining

1 and enjoining Defendant LG, and its affiliates, subsidiaries, directors, officers, employees, agents
 2 and representatives, and anyone acting in concert with them, from: (i) obtaining, using or
 3 disclosing Alta Devices' trade secrets for any purpose whatsoever; (ii) developing or marketing
 4 any products that rely on use or disclose any of the proprietary, trade secrets and/or Confidential
 5 Information belonging to Alta; and (iii) directing Defendant LG to return immediately all of Alta
 6 Devices' property, including Alta Devices' trade secrets, in Defendant LG's possession, custody
 7 or control.

8 102. Alta Devices is entitled to recovery from Defendant LG the damages it has
 9 sustained as a result of Defendant LG's wrongful act as alleged herein in an amount to be
 10 determined at trial, but in no event less than \$75,000. Alta Devices is further entitled to recover
 11 from Defendant LG the gains, profits, and advantages it has obtained as a result of its wrongful
 12 acts as herein alleged, in an amount to be determined at trial. Plaintiff is further entitled to an
 13 award of exemplary damages and attorney's fees.

14 **SECOND CAUSE OF ACTION**

15 **Misappropriation of Trade Secrets in Violation of the California Uniform Trade Secrets** 16 **Act (*California Civil Code § 3426, et seq.*)**

17 103. Plaintiff incorporates by reference as though fully set forth herein the preceding
 18 allegations of this Complaint.

19 104. On information and belief, the proprietary and Confidential Information taken and
 20 used by Defendant LG constitutes trade secrets as defined in California's Uniform Trade Secrets
 21 Action, California Civil Code § 2436, *et. seq.*

22 105. These trade secrets include, but are not limited to, those summarized above in
 23 paragraph 95.

24 106. Plaintiff owned and possessed certain proprietary, trade secret and Confidential
 25 Information, as alleged above.

26 107. On information and belief, Defendant LG has misappropriated and threatens to
 27 further misappropriate Alta Devices' trade secrets by both selling devices manufactured using
 28 Alta's proprietary, trade secret and Confidential Information, and by claiming as its own

1 intellectual property devices and processes developed using such information. The information
2 contained in these materials derives substantial independent economic value by not being
3 generally known the to the public, and specifically by not being known to Alta Devices'
4 competitors. The information is not generally known within the industry and represents years of
5 research and development. Alta Devices undertakes all reasonable efforts to maintain the
6 secrecy of its trade secrets and protect Confidential Information from disclosure, including but
7 not limited to use of non-disclosure agreements.

8 108. As a direct and proximate result of Defendant LG's unlawful, tortious conduct,
9 Alta Devices has been damaged and Defendant LG has been unjustly enriched. This unjust
10 enrichment includes value and profits attributed to the misappropriated information, including
11 amounts Defendant LG saved in research and development costs by using the misappropriated
12 information and increased productivity from the use of the misappropriated information.

13 109. Defendant LG's conduct and continued use of Alta Devices' misappropriated
14 trade secrets has caused, and unless enjoined by the Court, will continue to cause, great and
15 irreparable harm and injury to Alta Devices. Alta Devices has no other adequate remedy at law
16 for such acts and threatened acts. Alta Devices, therefore, requests that during the pendency of
17 this action, the Court issue a preliminary injunction, and that after trial, the Court issue a
18 permanent injunction, restraining and enjoining Defendant LG, and its affiliates, subsidiaries,
19 directors, officers, employees, agents and representatives, and anyone acting in concert with
20 them, from: (i) obtaining, using or disclosing Alta Devices' trade secrets for any purpose
21 whatsoever; (ii) developing or marketing any products that rely on use or disclose any of the
22 trade secrets and/or proprietary and Confidential Information belonging to Alta; and (iii)
23 directing Defendant LG to return immediately all of Alta Devices' property, including Alta
24 Devices' Confidential Information and trade secrets, in Defendant LG's possession, custody or
25 control.

26 110. Defendant LG's acts were malicious, fraudulent, and oppressive, and were done
27 with conscious disregard of Plaintiff's rights, all within the meaning of California Civil Code
28 § 3294, in that Defendant LG misappropriated Alta Devices' trade secret information

intentionally, knowingly, and with deliberate intent to benefit its business and harm Alta Devices' business. Alta Devices is entitled to recovery from Defendant LG the damages it has sustained as a result of Defendant LG's wrongful act as alleged herein in an amount to be determined at trial, but in no event less than \$75,000. Alta Devices is entitled to recover from Defendant LG the gains, profits, advantages, and unjust enrichment it has obtained as a result of its wrongful acts as herein alleged, in an amount to be determined at trial. Alta Devices is further entitled to an award of punitive damages and/or treble damages and attorney's fees pursuant to California Civil Code §§ 3426.3(c) and 3426.4.

111. In the event that neither Alta Devices' actual damages nor Defendant LG's unjust enrichment are subject to proof, Alta Devices is entitled to a reasonable royalty pursuant to California Code Section 3426.3(b).

THIRD CAUSE OF ACTION

Breach of Contract

112. Plaintiff incorporates by reference as though fully set forth herein the preceding allegations of this Complaint.

113. To facilitate discussions regarding a possible joint venture, on or about June 13, 2011, Plaintiff Alta Devices and Defendant LG entered into the 2011 NDA, which *inter alia*, only permitted Defendant LG to use the Confidential Information Alta Devices disclosed "in connection with the current or contemplated business relationship between the parties and not for any purpose other than as authorized by [the] Agreement." (**Exhibit A**, p. 1, at § 3.)

114. Pursuant to the 2011 NDA, Alta Devices disclosed Confidential Information to Defendant LG.

115. Plaintiff Alta Devices performed all of its obligations under the 2011 NDA.

116. Defendant LG breached the 2011 NDA by using Alta Devices' Confidential Information for purposes not authorized by the 2011 NDA. LG also breached the 2011 NDA by: (1) using Alta's Confidential Information for purposes not authorized by the 2011 NDA; and (2) failing to return and redeliver to Alta all tangible material embodying the Confidential

Information and all documents Notes based on or including any Confidential Information provided by Alta to LG pursuant to the 2011 NDA. (*See Exhibit A*, p. 1, at §6.)

117. As a direct and proximate result of Defendant LG's breach, Plaintiff Alta Devices has suffered damage and continues to suffer damage in an amount to be proven at trial.

118. Defendant LG's conduct and continued violation of the 2011 NDA has caused, and unless enjoined by the Court, will continue to cause, great and irreparable harm and injury to Alta. Alta Devices has no other adequate remedy at law for such acts and threatened acts. Alta, therefore, requests that during the pendency of this action, the Court issue a preliminary injunction, and that after trial, the Court issue a permanent injunction, restraining and enjoining LG and its affiliates, subsidiaries, directors, officers, employees, agents and representatives, and anyone acting in concert with them, from further violation of the 2011 NDA.

FOURTH CAUSE OF ACTION

Violation of California Bus. & Prof. Code § 17200

119. Plaintiff incorporates by reference as though fully set forth herein the preceding allegations of this Complaint.

120. Defendant LG engaged in unlawful, unfair, and/or fraudulent business acts and practices. Such acts and practices include, but are not limited to, misappropriating Alta Devices' proprietary, trade secret and Confidential Information.

121. Defendant LG's business acts and practices were unfair in that the substantial harm suffered by Alta Devices outweighs any justification that Defendant LG may have for engaging in those acts and practices.

122. Defendant LG's business acts and practices were unlawful as described above.

123. Defendant LG's business acts and practices were fraudulent in that a reasonable person would likely be deceived by their material misrepresentations and omissions. Defendant LG has acquired and used Alta Devices' proprietary, trade secret and Confidential Information through material misrepresentations and omissions. One such material concealment and omission occurred when LG made to Alta a non-binding investment indication of \$5 million for the "Series D" offering, subject to due diligence, while concealing that the due diligence was

1 being performed for LG's own in-house development of Alta technology, and that LG planned
2 on competing with Alta using the information gained under the 2011 NDA. Another fraudulent
3 and deceptive representation was LG's promise in the NDA only to use Confidential Information
4 for the business relationship of and between Alta and LG. In 2013 and 2014, LG fraudulently
5 obtained sample(s) of Alta materials for the falsely claimed purposes of evaluating the sample(s)
6 as a potential purchaser or investor, not, as was the case, as a competitor to reverse engineer.

7 124. Alta Devices has been harmed as a result of Defendant LG's unlawful, unfair, and
8 fraudulent business acts and practices. Alta Devices is entitled to (a) recover restitution,
9 including without limitation, all benefits that Defendant received as a result of their unlawful,
10 unfair, and fraudulent business acts and practices and (b) an injunction restraining Defendant
11 from engaging in further acts of unfair competition.

12 **FIFTH CAUSE OF ACTION**

13 **Declaratory Judgment**

14 125. Plaintiff incorporates by reference as though fully set forth herein the preceding
15 allegations in this Complaint.

16 126. An actual controversy has arisen between the parties concerning the nature of
17 LG's usage of Alta Devices' trade secrets and Confidential Information under the 2011 NDA.

18 127. LG claims that it has never used Alta Devices' Confidential Information received
19 pursuant to the 2011 NDA for any other purpose other than for the purpose agreed in the 2011
20 NDA.

21 128. However, as illustrated by the PVSEC Poster, LG is developing and using
22 technology directly derived from Alta Devices' intellectual property.

23 129. Alta Devices seeks a judicial determination of the parties' respective rights and
24 duties, and a declaration affirming that LG is breaching its duties under the NDA and using
25 Confidential Information of Alta in such breach.

26 130. A judicial determination resolving this actual controversy is necessary and
27 appropriate at this time in order to prevent LG's unjustified misappropriation of trade secrets and
28 breach of contract, which would result in irreparable harm to Alta.

JURY DEMAND

131. Pursuant to Federal Rule of Civil Procedure 38(b), Plaintiff hereby requests a trial by jury of all issues so triable.

REQUEST FOR RELIEF

WHEREFORE, Plaintiff respectfully seeks an Order of this Court:

1. For actual damages in an amount to be proven at trial, but in excess of \$75,000;
2. For restitution and disgorgement of Defendant LG's unjust enrichment, in an amount to be proven at trial, but in excess of \$75,000; or in the alternative, reasonable royalty;
3. For an award of punitive damages in amount to be proven at trial;
4. For restitution;
5. For Defendant LG to return all of Alta Devices' trade secrets and all other proprietary or Confidential Information in Defendant LG's possession, custody or control;
6. For an injunction against future harm by disclosure or adverse use;
7. For pre-judgment and post-judgment interest at the maximum legal rate, as applicable, as an element of damages that Alta Devices has suffered as a result of Defendant LG's wrongful acts;
8. For reasonable attorneys' fees and costs incurred herein as allowed by law; and
9. For such other relief as the Court deems just and proper.

Dated: January 18, 2018

O'CONNOR AND ASSOCIATES

/s/ John D. O'Connor
JOHN D. O'CONNOR
Attorneys for Plaintiff
ALTA DEVICES, INC.

Exhibit A

MUTUAL NON-DISCLOSURE AGREEMENT

General

THIS NON-DISCLOSURE AGREEMENT ("Agreement") is entered into on this 13th day of June 2011 ("Effective Date") by and between Alta Devices, Inc. ("ALTA"), a Delaware corporation, located at 3260 Scott Blvd., Santa Clara, CA 95054, and LG Electronics Inc. ("COMPANY") a corporation duly organized and existing under the laws of the Republic of Korea, located at 20 Yoldo-dong, Youngdungpo-gu, Seoul 150-721, the Republic of Korea.

ALTA is in the business of developing and designing components for green technology applications. COMPANY provides services or otherwise has interests in pursuing business activities with ALTA. The parties hereto desire to participate in discussions regarding ALTA's Series B technical accomplishments and its commercial viability (the "Subject Matter"). During these discussions, the parties may share certain proprietary information with each other. Therefore, in consideration of the mutual promises and covenants contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. Definition of Confidential Information.

(i) As used herein, Confidential Information means any data or information that is proprietary to the disclosing party and not generally known to the public, whether in tangible or intangible form, whenever and however disclosed, including but not limited to: (a) any marketing strategies, plans, financial information, forecasts, or projections, operations, sales estimates, business plans and performance results relating to the past, present or future business activities of such party, its affiliates, subsidiaries and affiliated companies; manufacturing partners, or manufacturing licensees; (b) plans for customers, products or services, and customer or supplier lists; (c) any scientific or technical information, inventions, designs, schematics, technical drawings, architectures and architectural concepts, compositions of matter, processes, procedures, formulae, improvements, technologies, methods, or other innovations; (d) any concepts, reports, data, know-how, works-in-progress, designs, development tools, specifications, computer software, source code, object code, flow charts, databases, information or trade secrets; (e) any other information that should reasonably be recognized as confidential information of the disclosing party; and (f) any summaries and analyses thereof prepared by the receiving party. Additional Confidential Information may also be identified in Appendix "A", hereto. Confidential Information need not be novel, unique, patentable, copyrightable, or constitute a trade secret in order to be designated Confidential Information. The receiving party acknowledges that the Confidential Information is proprietary to the disclosing party, has been developed and obtained through great efforts and expense by the disclosing party, and that disclosing party regards all of its Confidential Information as trade secrets.

(ii) Confidential Information shall not include information that the receiving party can demonstrate that the information: (a) was at the time of disclosure or thereafter becomes publicly known through no fault or failure to act by the receiving party or its authorized Representatives (as defined in paragraph 2, below); (b) was known to the receiving party before receiving such information from the disclosing party and without restriction as to use or disclosure; (c) was legally furnished to the receiving party by a third party, without restriction as to use or disclosure; or (d) is independently developed by employees or consultants of the receiving party without violation of the terms of this Agreement, or reference, or access to the Confidential Information.

2. Disclosure of Confidential Information. Each party agrees (i) to hold the other party's Confidential Information in strict confidence and to take all commercially reasonable precautions to protect such Confidential Information, that is, in no event less than the degree of care used by it in safeguarding its own confidential information; (ii) to limit disclosure of any Confidential Information to its directors, officers, employees, agents or

representatives (collectively "Representatives") on a strict need-to-know basis, in connection with the current or contemplated business relationship between the parties to which this Agreement relates, and only for that purpose, provided that the receiving party (a) advises its Representatives of the proprietary nature of the Confidential Information and of the obligations set forth in this Agreement, and (b) requires such Representative(s) to keep the Confidential Information confidential; and (iii) not disclose any Confidential Information received by it to any third parties, including consultants, without the prior written consent of the disclosing party.

3. Use of Confidential Information. The receiving party agrees to use the Confidential Information solely in connection with the current or contemplated business relationship between the parties and not for any purpose other than as authorized by this Agreement without the prior written consent of an authorized representative of the other party. Further, the receiving party agrees not to reverse engineer, decompile, or disassemble any Confidential Information. No other right or license, whether expressed or implied, in the Confidential Information is granted to the receiving party. Title to the Confidential Information will remain solely in the disclosing party. All use of the Confidential Information by the receiving party shall be for the benefit of the disclosing party and any modifications and improvements thereof (e.g., summaries and analyses thereof) by the receiving party shall be the sole property of the disclosing party.

4. Compelled Disclosure of Confidential Information. Notwithstanding anything in the foregoing to the contrary, the receiving party may disclose Confidential Information pursuant to a United States governmental, judicial, or administrative order, subpoena, discovery request, regulatory request, or other formal request, provided that the receiving party promptly notifies the disclosing party (in accordance with paragraph 11 (v), below) of such demand for disclosure so that disclosing party may object to the disclosure or seek a protective order, or other appropriate remedy to preserve the confidentiality of its Confidential Information. The receiving party agrees that it shall not oppose and shall cooperate with efforts by, the extent practicable, and the disclosing party with respect to any such request for a protective order or other relief. Notwithstanding the foregoing, if the disclosing party is unable to obtain or does not seek a protective order and the receiving party is legally requested and required to disclose such Confidential Information, disclosure of such Confidential Information may be made without liability.

5. Term. The term for the parties' disclosure of Confidential Information under this Agreement ("Disclosure Period") shall be one (1) year (extendable by addendum), from the Effective Date. The parties' duty to hold in confidence Confidential Information that was disclosed during the Term shall survive for an additional three (3) years after expiration of this Agreement.

6. Return of Confidential Information. Receiving party shall immediately return and redeliver to the disclosing party, all tangible material embodying the Confidential Information provided hereunder, and all notes, summaries, memoranda, drawings, manuals, records, excerpts, or derivative information derived therefrom, and all other documents or materials ("Notes") (and all copies of any of the foregoing, including but not limited to "copies" that have been converted to computerized media in the form of image, data, or word processing files either manually or by image capture) based on or including any Confidential Information, in whatever form of storage or retrieval, upon the earlier of (i) the completion or termination of the dealings between the parties contemplated hereunder; (ii) the termination of this Agreement; or (iii) at such time as the disclosing party may so request; provided, however, that the receiving party may retain such of its documents as is necessary to enable it to comply with its document retention policies. Alternatively, the receiving party, with the written consent of the disclosing party, may (or in the case of Notes, at the receiving party's option) immediately destroy any of the foregoing embodying Confidential Information (or the reasonably non-recoverable data erasure of computerized data) and, upon request,

certify in writing such destruction by an authorized officer of the receiving party supervising the destruction.)

7. **Notice of Breach.** Receiving party shall notify the disclosing party immediately upon discovery of any unauthorized or inadvertent use or disclosure of Confidential Information by receiving party or its Representative(s), or any other breach of this Agreement by receiving party or its Representative(s), and will cooperate with efforts by the disclosing party to regain possession of Confidential Information and prevent its further unauthorized use or dissemination.

8. **Remedies.** Both parties acknowledge that the Confidential Information to be disclosed hereunder is of a unique and valuable character to the disclosing party, and the unauthorized use or dissemination of the Confidential Information would destroy or diminish the value of such Information. The damages to Disclosing Party that would result from the unauthorized use or dissemination of the Confidential Information would be impossible to calculate. Accordingly, both parties hereby agree that the disclosing party shall be entitled to injunctive relief preventing the dissemination of any Confidential Information in violation of the terms hereof. Such injunctive relief shall be in addition to any other remedies available hereunder, whether at law or in equity. Disclosing party shall be entitled to recover its costs and fees, including attorneys' fees, incurred in obtaining any such relief.

9. **No Binding Agreement for Transaction.** The parties agree that neither party will be under any legal obligation to proceed with or enter into any transaction or business relationship by virtue of this Agreement, except for the matters specifically agreed to herein. The parties further acknowledge and agree that they each reserve the right, in their sole discretion, to reject any and all proposals and to terminate discussions and negotiations with respect to a transaction at any time. This Agreement does not create a joint venture or partnership between the parties. If a transaction goes forward, the non-disclosure provisions of any applicable transaction documents entered into between the parties (or their respective affiliates) for the transaction shall supersede this Agreement. In the event such provision is not provided for in said transaction documents, this Agreement shall control.

10. **Warranties.** Each party warrants that it has entered into this Agreement in good faith, and has the right to make the disclosures under this Agreement. **EITHER PARTY MAKES NO OTHER WARRANTIES UNDER THIS AGREEMENT.** The parties understand that either party is making no representation or warranty as to the accuracy or completeness of the Confidential Information. Further, neither party is under any obligation under this Agreement to disclose any Confidential Information it chooses not to disclose. Neither party shall be liable to the other party or the other party's Representatives resulting from any use of the Confidential Information except with respect to disclosure or use of such Confidential Information in violation of this Agreement.

11. **Miscellaneous.**

(i) **Entire Agreement.** This Agreement constitutes the entire understanding between the parties and supersedes any and all prior or contemporaneous understandings and agreements, whether oral or written, between the parties, with respect to the subject matter hereof. This Agreement can only be modified by a written amendment signed by both parties.

(ii) **Governing Law, Jurisdiction, and Venue.** The rights and obligations of the parties under this Agreement shall be governed by and construed under the laws of the State of California, without reference to any conflict of laws principles. The United Nations Convention on Agreements for the International Sale of Goods will not apply to this Agreement. The exclusive jurisdiction and venue of any action with respect to the subject matter of this Agreement shall be the state courts for the State of California or the U.S. District Court for the Northern District of California, and each Party hereto submits itself to the exclusive jurisdiction, venue, and personal jurisdiction of such courts for the purpose of any such action.

(iii) **No Waiver.** Any failure by either party to enforce the other party's strict performance of any provision of this Agreement will not constitute a waiver of its right to subsequently enforce such provision or any other provision of this Agreement.

(iv) **Severability.** Although the restrictions contained in this Agreement are considered by the parties to be reasonable for the purpose of protecting Confidential Information, if any such restriction is deemed unenforceable, such provision will be modified, rewritten, or interpreted to include as much of its nature and scope as will render it enforceable, if possible. In any event, the remainder of this Agreement shall be enforced as if such provision was not included.

(v) **Notices.** Any notices or communications required or permitted to be given hereunder may be delivered by hand, overnight carrier, certified mail, return receipt requested, or electronic mail (with confirmation by US Mail) to the following:

FOR ALTA: Alta Devices, Inc., Attn: Legal Department, 3260 Scott Blvd., Santa Clara, CA 95054, Tel: (408) 886-9374, EM: jullems@altadevices.com.

FOR COMPANY: LG Electronics Inc., Attn: CTO Technology Strategy Team, 221 Yangjae-dong, Seocho-gu, Seoul 137-130, Tel: 10-5705-3366, EM: jaesung.lee@lge.com.


(vi) **No Assignment.** This Agreement is personal in nature, and neither party may directly or indirectly assign or transfer it by operation of law or otherwise without the prior written consent of the other party, which consent will not be unreasonably withheld.

(vii) **Counterparts.** This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together will constitute one and the same instrument.

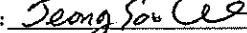
IN WITNESS WHEREOF, the parties hereto have executed this Agreement by their duly authorized officers or representatives.


AGREED TO:

ALTA DEVICES, INC.:

Signature: 
Name: Joseph Foster
Title: VP Business Dev.
Date signed: June 13, 2011

COMPANY:

Signature: 
Name: Jeong Soo Lee
Title: Vice President
Date signed: June 9, 2011

Signature: 
Name: Ji-weon Jeong
Title: Vice President
Date signed: June 8, 2011

APPENDIX "A"

LIST OF PARTIES' CONFIDENTIAL INFORMATION¹

- 1) CVD technology and its commercial viability
 - CVD (Alta 2T) chamber scheme
 - growth rate
 - thin film quality
 - uniformity
 - gas utilization efficiency
 - scalability and short cycle time feasibility
- 2) ELO technology and wafer reusability
 - ELO reproducibility for 100x100mm² samples
 - GaAs reusability data (actual and estimate)
- 3) Cell technology that resulted in 26.8% efficiency
 - device structure (e.g. thin film structure, passivation, anti reflection coating, surface texturing)
 - efficiency distribution per process batch
- 4) Quality control method
 - film quality
 - ELO quality
 - device characteristics (e.g. efficiency, reliability)
- 5) LCOE estimate basis
 - lifetime
 - yield
 - GaAs reusability
 - throughput

¹ The parties acknowledge that any listing on this Appendix A may be incomplete, is for convenience only, and that no inference shall be drawn from the non-inclusion of information in this Exhibit A that such information does not qualify as Confidential Information.

Exhibit B

From: Sung Han [<mailto:sungsu.han@gmail.com>]

Sent: Saturday, February 11, 2012 3:36 PM

To: Wen Hsieh

Subject: A preview of what may be coming in the next week or so from LGE

Wen,

I assume you are well, whether you are in the US or in China.

just wanted get your feedback in the preview...I think this is what LGE is thinking in terms of an overall proposal package:

Phase 1: Post non-binding Due Diligence, they will invest \$5 million

Phase 2: LGE/Alta collaborate on technology development and high-volume production readiness

Phase 3: Production JV with place, capacity and total investment to be determined during phase 2

Phase 4: Distribution and sales collaboration

Would love your feedback.

By the way, there should be a list of questions that LGE would like Alta to which to respond. I will get the list to you as soon as it arrives.

Let me know.

Best.

Sung Han

CONFIDENTIALITY NOTICE: This message is intended only for the person or persons to whom it was addressed or copied and may contain privileged and confidential information. If you are not an addressee or copied recipient as indicated in the address bar, any use of the information contained in this message is prohibited. We request that you notify us that you received this email and then delete all copies of this message including all attachments.

Exhibit C



Arent Fox LLP / Attorneys at Law
Los Angeles, CA / New York, NY / San Francisco, CA / Washington, DC
www.arentfox.com

August 23, 2016

Arthur S. Beeman
415.757.5516 DIRECT
415.757.5501 FAX
arthur.beeman@arentfox.com

SENT VIA REGISTERED MAIL

CONFIDENTIAL

LG ELECTRONICS INC.
ATTN: Hyoungyoon Kim, Director of Tech. Planning
20 Yoido-dong
Youngdungpo-gu, Seoul 150-721
Republic of Korea

Re: Alta Devices' Intellectual Property

Dear Mr. Kim:

Alta Devices ("Alta") writes to LG Electronics, Inc. ("LG"), advising LG of issues relating to LG's apparent use of Alta's intellectual property. Alta has learned of information that appears to indicate that LG is developing and/or manufacturing a solar cell structure that is very similar to a proprietary Alta product. The solar cell structure is not just similar, but appears to show that LG's solar cell manufacturing uses techniques similar to Alta's intellectual property.

As you are aware, Alta and LG entered into an NDA dated June 13, 2011 (the "2011 NDA") and another NDA dated September 23, 2014 (the "2014 NDA"). Because Alta has, on more than one occasion: (1) shipped Alta product samples to LG embodying Alta's intellectual property; and (2) shared Alta's confidential information pursuant to confidentiality agreements, Alta has well-founded concerns that LG may be using Alta's intellectual property with neither a license nor Alta's consent. LG's improper use of Alta's Confidential Information may give rise to, among other potential claims, a claim for trade secret misappropriation.

Without prejudicing or waiving Alta's right to any remedies or relief, Alta hereby requests that LG provide to Alta assurance in writing that it has taken all necessary measures to prevent any encroachment on Alta's intellectual property rights. If such assurances are not forthcoming, it may be construed as evidence of LG's admission of violation of, or intent to violate, Alta's intellectual property rights.

Arent Fox

LG Electronics Inc.
August 23, 2016
Page 2

Furthermore, Alta has conducted a review identifying Alta patents relevant to LG's solar products. These patents relate to methods and devices for converting solar energy into electric energy with higher efficiency over conventional solar cells and methods for fabricating such devices at costs lower than conventional solar cells. By tender of this letter, Alta also places LG on notice of the following Alta patents that may be LG's solar products:

1. **U.S. Patent No. 8,937,244**

U.S. Patent No. 8,937,244 (the "'244 Patent") is titled a "photovoltaic device." The '244 Patent was filed on October 23, 2009, and issued on January 20, 2015, with seven claims. The inventors are Isik Kizilyalli, Melissa Archer, Harry Atwater, Thomas Gmitter, Gang He, Andreas Hegedus, and Gregg Higashi.

2. **U.S. Patent No. 8,674,214**

U.S. Patent No. 8,674,214 (the "'214 Patent") is titled a "thin absorber layer of a photovoltaic device." The '214 Patent was filed on October 23, 2009, and issued on March 18, 2014, with eleven claims. The inventors are Isik Kizilyalli, Melissa Archer, Harry Atwater, Thomas Gmitter, Gang He, Andreas Hegedus, and Gregg Higashi.

3. **U.S. Patent No. 8,686,284**

U.S. Patent No. 8,686,284 (the "'284 Patent") is titled a "photovoltaic device with increased light trapping." The '284 Patent was filed on October 23, 2009, and issued on April 1, 2014, with four claims. The inventors are Isik Kizilyalli, Melissa Archer, Harry Atwater, Thomas Gmitter, Gang He, Andreas Hegedus, and Gregg Higashi.

4. **U.S. Patent No. 9,029,687**

U.S. Patent No. 9,029,687 (the "'687 Patent") is titled a "photovoltaic device with back side contacts." The '687 Patent was filed on October 23, 2009, and issued on May 2, 2015, with fourteen claims. The inventors are Isik Kizilyalli, Melissa Archer, Harry Atwater, Thomas Gmitter, Gang He, Andreas Hegedus, and Gregg Higashi.

Arent Fox

LG Electronics Inc.
August 23, 2016
Page 3

5. U.S. Patent No. 9,178,099

U.S. Patent No. 9,178,099 (the “‘099 Patent”) is titled a “methods for forming optoelectronic devices including heterojunction.” The ‘099 Patent was filed on April 19, 2002, and issued on November 3, 2015, with fourteen claims. The inventors are Hui Nie, Brendan Kayes, and Isik Kizilyalli.

6. U.S. Patent No. 9,136,418

U.S. Patent No. 9,136,418 (the “‘418 Patent”) is titled a “optoelectronic devices including heterojunction and intermediate layer.” The ‘418 Patent was filed on April 19, 2002, and issued on September 15, 2015 with twelve claims. The inventors are Hui Nie, Brendan Kayes, and Isik Kizilyalli.

Because analysis of Alta’s patents remains ongoing, there may be additional patents, including patents issued in foreign jurisdictions, that may also be at issue. Alta expressly reserves all rights with respect to providing notice of additional Alta patents.

* * *

To the extent LG’s solar products incorporate and implement key Alta technologies protected by intellectual property law, Alta requests that the parties discuss a global license that would cover LG’s solar business.

I look forward to your reply.

Sincerely,



Arthur S. Beeman

ASB:kad

Exhibit D



Arent Fox LLP / Attorneys at Law
Los Angeles, CA / New York, NY / San Francisco, CA / Washington, DC
www.arentfox.com

October 18, 2016

VIA FEDERAL EXPRESS

CONFIDENTIAL

LG ELECTRONICS, INC.
ATTN: Lee Jeong-Soo, Vice President
20 Yeo-euido-dong
Yeongdeungpo-gu
Seoul 07336
Republic of Korea

ATTN: James Suh, Director & Senior IP Counsel
Intellectual Property Center
19 Yangjae-dong
Seocho-gu
Seoul 06745
Republic of Korea

Re: Alta Devices Inc.'s Intellectual Property

Dear Sirs:

I represent Alta Devices, Inc. ("Alta") in connection with the enforcement of Alta's intellectual property rights.

On August 23, 2016, I sent a registered letter to Mr. Hyoungyoon Kim concerning LG Electronics, Inc.'s apparent use of Alta's intellectual property (the "Notice Letter"). The Notice Letter was addressed to Mr. Kim as he was the signatory on a September 23, 2014 NDA executed by and between Alta and LG Electronics, Inc. Recently, this letter was returned as undeliverable.

You have been identified as alternative recipients of the Notice Letter to ensure that the issues raised therein may be appropriately addressed by LG. If this letter has been inadvertently directed to you, I request that you directly forward this letter to the appropriate LG individual or department.


I repeat my request in the enclosed letter LG respond within thirty (30) to provide assurance in writing that LG has taken all necessary measures to prevent any encroachment on Alta's intellectual property rights. If LG fails to respond and cooperate, I will have no alternative but to advise Alta to consider taking civil actions against LG in order to protect its rights.

Arent Fox

LG ELECTRONICS, INC.
October 18, 2016
Page 2

I hope that such action is not necessary and I look forward to receiving a prompt reply.

Sincerely,



Arthur S. Beeman

Enclosure

Arent Fox

Arent Fox LLP / Attorneys at Law
Los Angeles, CA / New York, NY / San Francisco, CA / Washington, DC
www.arentfox.com

August 23, 2016

Arthur S. Beeman
415.757.5516 DIRECT
415.757.5501 FAX
arthur.beeman@arentfox.com

SENT VIA REGISTERED MAIL

CONFIDENTIAL

LG ELECTRONICS INC.
ATTN: Hyoungyoon Kim, Director of Tech. Planning
20 Yoido-dong
Youngdungpo-gu, Seoul 150-721
Republic of Korea

Re: Alta Devices' Intellectual Property

Dear Mr. Kim:

Alta Devices ("Alta") writes to LG Electronics, Inc. ("LG"), advising LG of issues relating to LG's apparent use of Alta's intellectual property. Alta has learned of information that appears to indicate that LG is developing and/or manufacturing a solar cell structure that is very similar to a proprietary Alta product. The solar cell structure is not just similar, but appears to show that LG's solar cell manufacturing uses techniques similar to Alta's intellectual property.

As you are aware, Alta and LG entered into an NDA dated June 13, 2011 (the "2011 NDA") and another NDA dated September 23, 2014 (the "2014 NDA"). Because Alta has, on more than one occasion: (1) shipped Alta product samples to LG embodying Alta's intellectual property; and (2) shared Alta's confidential information pursuant to confidentiality agreements, Alta has well-founded concerns that LG may be using Alta's intellectual property with neither a license nor Alta's consent. LG's improper use of Alta's Confidential Information may give rise to, among other potential claims, a claim for trade secret misappropriation.

Without prejudicing or waiving Alta's right to any remedies or relief, Alta hereby requests that LG provide to Alta assurance in writing that it has taken all necessary measures to prevent any encroachment on Alta's intellectual property rights. If such assurances are not forthcoming, it may be construed as evidence of LG's admission of violation of, or intent to violate, Alta's intellectual property rights.

Arent Fox

LG Electronics Inc.
August 23, 2016
Page 2

Furthermore, Alta has conducted a review identifying Alta patents relevant to LG's solar products. These patents relate to methods and devices for converting solar energy into electric energy with higher efficiency over conventional solar cells and methods for fabricating such devices at costs lower than conventional solar cells. By tender of this letter, Alta also places LG on notice of the following Alta patents that may be LG's solar products:

1. **U.S. Patent No. 8,937,244**

U.S. Patent No. 8,937,244 (the "'244 Patent") is titled a "photovoltaic device." The '244 Patent was filed on October 23, 2009, and issued on January 20, 2015, with seven claims. The inventors are Isik Kizilyalli, Melissa Archer, Harry Atwater, Thomas Gmitter, Gang He, Andreas Hegedus, and Gregg Higashi.

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U.S. Patent No. 9,029,687 (the "'687 Patent") is titled a "photovoltaic device with back side contacts." The '687 Patent was filed on October 23, 2009, and issued on May 2, 2015, with fourteen claims. The inventors are Isik Kizilyalli, Melissa Archer, Harry Atwater, Thomas Gmitter, Gang He, Andreas Hegedus, and Gregg Higashi.

Arent Fox

LG Electronics Inc.
August 23, 2016
Page 3

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U.S. Patent No. 9,178,099 (the “‘099 Patent”) is titled a “methods for forming optoelectronic devices including heterojunction.” The ‘099 Patent was filed on April 19, 2002, and issued on November 3, 2015, with fourteen claims. The inventors are Hui Nie, Brendan Kayes, and Isik Kizilyalli.

6. U.S. Patent No. 9,136,418

U.S. Patent No. 9,136,418 (the “‘418 Patent”) is titled a “optoelectronic devices including heterojunction and intermediate layer.” The ‘418 Patent was filed on April 19, 2002, and issued on September 15, 2015 with twelve claims. The inventors are Hui Nie, Brendan Kayes, and Isik Kizilyalli.

Because analysis of Alta’s patents remains ongoing, there may be additional patents, including patents issued in foreign jurisdictions, that may also be at issue. Alta expressly reserves all rights with respect to providing notice of additional Alta patents.

* * *

To the extent LG’s solar products incorporate and implement key Alta technologies protected by intellectual property law, Alta requests that the parties discuss a global license that would cover LG’s solar business.

I look forward to your reply.

Sincerely,



Arthur S. Beeman

ASB:kad

Exhibit E



19, Yangjae-daero 11 gil, Seocho-gu
Seoul 137-130, Korea

Intellectual Property Center

E-mail: kristen.choi@lge.com

November 26, 2016

Re: Re : Alta Devices Inc.'s Intellectual Property.

Dear Mr. Beeman:

We received your October 18, 2016 letter addressed to Mr. James Suh, IP Counsel regarding the above matter.

First, I will be the main contact for this matter so please direct all the future correspondence to me.

LG confirms that (1) LG has never used Alta's confidential information received pursuant to the 2011 NDA for any other purpose other than for the purpose agreed in the 2011 NDA, and (2) LG has never used Alta's confidential information received pursuant to the 2014 NDA for any other purpose other than for the purpose agreed in the 2014 NDA. Upon request of Alta, LG will either return or destroy the five (5) Alta product samples which are currently in LG's possession and all documents received from Alta pursuant to both the 2011 NDA and 2014 NDA.

Also please be informed that we found no relevance between the products LGE is currently developing and the patents mentioned in your letter.

Sincerely yours,

A handwritten signature in black ink that reads 'Kyung-Keum, Choi'.

Kyungkeum (Kristen) Choi
Manager
Intellectual Property Center

Exhibit F



Arent Fox LLP / Attorneys at Law
Los Angeles, CA / New York, NY / San Francisco, CA / Washington, DC
www.arentfox.com

January 9, 2017

Arthur S. Beeman

Partner

415.757.5516 DIRECT

415.757.5501 FAX

arthur.beeman@arentfox.com

SENT VIA FEDERAL EXPRESS

CONFIDENTIAL

LG Electronics, Inc.
Intellectual Property Center
ATTN: Kyungkeum (Kristen) Choi, Manager
19, Yangjae-daero 11 gil, Seocho-gu
Seoul 06772, Korea

Re: Alta Device's Intellectual Property

Dear Ms. Choi:

Alta is troubled by your letter response dated November 26, 2016. In your letter, LG simply provides conclusory statements that fail to confirm that LG is not appropriating nor exploiting Alta's intellectual property without a license or Alta's consent. In fact, your letter has only served to heighten many of Alta's concerns.

Alta's Trade Secrets

By your admission, and in clear violation of both the 2011 and 2014 NDAs, LG continues to maintain Alta's Confidential Information received pursuant to both NDAs.

As you are aware, under the 2011 NDA, LG was obligated to: "immediately return and redeliver [Confidential Information] to the disclosing party. . . upon the earlier of (i) the completion or termination of the dealings between the parties contemplated hereunder; (ii) the termination of this Agreement; or (iii) at such time as the disclosing party may so request." (2011 NDA at § 6 (emphasis added).) It is undisputed that the dealings between Alta and LG under the 2011 NDA have been completed and have terminated pursuant to the terms of that agreement, triggering LG's obligation to "immediately return and redeliver" Alta's Confidential Information. Nonetheless, LG admits that it failed to abide by its commitments.

Furthermore, under the 2014 NDA, LG was similarly obligated to: "promptly return all originals, copies, reproductions and summaries of the Confidential Information furnished by the Disclosing Party upon the written request of the Disclosing Party or after termination or expiration of this Agreement." (2014 NDA at § 5.2.) Because the two year term of the 2014 NDA has passed,

Arent Fox

LG Electronics, Inc.
January 9, 2017
Page 2

that agreement has indisputably “terminated” and/or “expired.” As with the 2011 NDA, LG’s obligation under the 2014 NDA to “promptly return” Confidential Information has been triggered, but LG has again failed to comply.

Alta demands that LG return Alta’s product samples and, pursuant to the terms of the 2011 and 2014 NDAs, any and all Confidential Information. To be abundantly clear, LG’s obligation to return is not limited to tangible documents. For example, Confidential Information, under the 2011 NDA, includes:

. . . all tangible material embodying the Confidential Information provided hereunder, and all notes, summaries, memoranda, drawings, manuals, records, exce[r]pts, or derivative information derived therefrom, and all other documents or materials (“Notes”) (and all copies of any of the foregoing, including but not limited to “copies” that have been converted to computerized media in the form of image, data, or word processing files either manually or by image capture) based on or including any Confidential Information, in whatever form of storage or retrieval . . .

(2011 NDA at § 6.)

Accordingly, LG must return to Alta information that LG has derived from Alta’s Confidential Information as well as any electronic media relating to Alta’s Confidential Information. Alta demands that LG return Alta’s Confidential Information immediately, no later than **ten days** from the date of this letter.

Based upon LG’s admission that it continues to possess Alta’s Confidential Information, Alta has reasonable concerns regarding the potential that its trade secret information has been mishandled and/or misappropriated. LG’s unverified and conclusory confirmations that it “has never used Alta’s confidential information received pursuant to the 2011 NDA for any other purpose other than for the purpose[s] agreed” does nothing to alleviate these concerns. Alta reserves all rights, including those with regard to the protection of its trade secret and/or confidential information.

Patent Infringement

Separately, Alta is confused as to how LG can honestly claim to have “found no relevance between the products LGE is currently developing and the patents mentioned in [Alta’s] letter.” This narrowly-worded and equivocal “finding” amounts to no response at all. cursory investigation alone shows that LG, according to its own website, sells and manufacturers solar

Arent Fox

LG Electronics, Inc.
January 9, 2017
Page 3

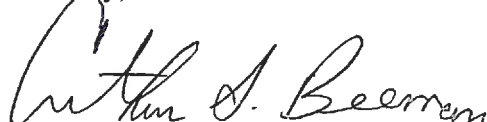
products,¹ touting, among other things, a “Cello Technology” that provides improvements in performance and efficiency that appear to read on the claims disclosed in Alta’s patents.²

Alta demands that LG explain, within **thirty days**, how its products and manufacturing processes are unrelated to the Alta patents identified in my letter dated August 23, 2016, which cover methods and devices for converting solar energy into electric energy with higher efficiency and methods for fabricating such devices at lower costs. LG’s refusal to cooperate will be construed as evidence of LG’s admission of infringement, or intent to infringe, Alta’s patents.

* * *

I look forward to your prompt response and hope that LG treats this matter with the attention and seriousness that it deserves. Alta expressly reserves any and all rights, including, but not limited to, all rights regarding its intellectual property.

Sincerely,



Arthur S. Beeman

¹ See, e.g., <http://www.lg-solar.com/global/lg-quality/in-house-production.jsp>.

² See <http://www.lg-solar.com/global/products/index.jsp>.

Exhibit G



Intellectual Property Center
E-mail: kristen.choi@lge.com

19, Yangjae-daero 11 gil, Seocho-gu
Seoul 137-130, Korea

February 9, 2017

Re: Re : Alta Device's Intellectual Property

Dear Mr. Beeman:

We have received your letter dated January 9, 2017. In response to your letter, we have reevaluated the terms of which Confidential Information is to be returned in accordance to the 2011 and 2014 NDA's between the parties.

We would like to note that although both parties are under the obligation of returning certain Confidential Information and documents that are derived from the disclosed information, not all Confidential Information needs to be returned to the disclosing party. For instance, "Notes" under the 2011 NDA, at the option of the receiving party, may be destroyed in lieu of returning, and only if requested by the disclosing party shall the receiving party certify in writing of such destruction(2011 NDA §6).

However, in the spirit of cooperation and good faith, we return and share with you all the documents and samples, including Notes, that were received and developed in the process of discussions with Alta. We have redacted certain information we determined was not privy to Alta from our internal documents. Also, in the process of compiling information, it has come to our attention that we have unintentionally discarded two (2) samples (one 5 x 1 and one 6 x 1) and those samples are no longer in our possession. However, all other samples will be returned to you via mail.

We expect our full disclosure of the documents and samples that we received and developed to be sufficient to rest your concerns regarding any alleged misuse of Alta's Confidential



19, Yangjae-daero 11 gil, Seocho-gu
Seoul 137-130, Korea

Information.

LG confirms once again, in line with our previous communication dated November 2, 2016, that we have not used any of Alta's Confidential Information received pursuant to the 2011 and 2014 NDAs for any other purpose other than for the purposes agreed in the NDAs.

Regarding the patent infringement, as I mentioned in the previous letter we were not able to find any relevance between LGE products and patents. Therefore we are not interested in continuing to communicate with you further without any details of your infringement allegations.

As you may know, in general, the patent holder bears the burden of proof to show that the alleged infringer infringes the patent. If you would like to engage in meaningful discussions, you should provide us with details of your patents vis-à-vis LGE's products. If you provide us with such details, we can evaluate next steps.

Sincerely yours,

A handwritten signature in black ink that reads 'Kyung-keum Choi'.

Kyungkeum (Kristen) Choi

Manager

Intellectual Property Center

Attached;

1. Document Return_2011NDA.zip
2. Document Return_2014NDA.zip
3. Document Return_2014NDA_1.zip

Exhibit H



Arent Fox LLP / Attorneys at Law
Los Angeles, CA / New York, NY / San Francisco, CA / Washington, DC
www.arentfox.com

February 16, 2017

SENT VIA E-MAIL AND FEDERAL EXPRESS

CONFIDENTIAL

Arthur S. Beeman

Partner

415.757.5516 DIRECT

415.757.5501 FAX

arthur.beeman@arentfox.com

LG Electronics, Inc.
Intellectual Property Center
ATTN: Kyungkeum (Kristen) Choi, Manager
19, Yangjae-daero 11 gil, Seocho-gu
Seoul 06772, Korea
Email: kristen.choi@lge.com

Re: Alta Devices' Intellectual Property

Dear Ms. Choi:

Thank you for your letter dated February 9, 2016. While we appreciate the materials that were attached, as you will see from our comments and questions below, your correspondence raised more questions than it answered. While we are still in the process of reviewing the letter, the samples received, and the attachments, three issues need to be addressed immediately.

First, we note that LG maintains that it has no obligation to return certain materials pursuant to the 2011 NDA (based on language that, we note, is not in the 2014 NDA). This causes Alta concern that, despite your representation, LG has destroyed and/or declined to return certain materials. Bearing in mind that Alta has not given consent for destruction in lieu of return of any materials, LG's equivocal representations are insufficient. Alta further notes that many of the LG-branded documents that were returned appear to be end-use presentations that summarize the results of LG's testing, analysis, use and study of Alta's Confidential Information. However, LG has returned no indicia of such study, testing, analysis, use or study. As such, LG's representation that it has returned "all" materials, including Notes, is inherently unreliable.

Within **seven (7)** days, please inform Alta of the steps LG undertook to unequivocally confirm that it gathered and returned all materials that it is obligated to return pursuant to Section 6 of the 2011 NDA and Section 5.2 of the 2014 NDA. If LG has any materials that it has not returned to Alta, please notify me, within **seven (7)** days the type of documents that remain to be gathered and when Alta can expect their delivery.

Second, we note that LG indicates it has "redacted" certain information that it determined "was not privy to Alta." Based on this slim representation, Alta is not convinced that any redactions

Arent Fox

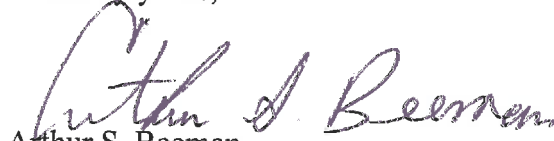
Kyungkeum (Kristen) Choi
February 16, 2017
Page 2

improper use of Alta's Confidential Information. In order to ensure compliance with the two NDAs, within **seven (7) days**, please identify the number of pages withheld from return, the documents that were returned that contain redactions, the nature of the material redacted, and an explanation of why materials regarding Alta's Confidential Information contain ancillary information "not privy to Alta." Again, LG's representation is inherently unreliable and LG must alleviate Alta's concerns regarding LG's use of Alta's Confidential Information.

Third, while Alta appreciates LG's statement that it has "not used any of Alta's Confidential Information received pursuant to the 2011 and 2014 NDAs for any purpose other than for the purposes agreed in the NDAs," this representation is impossible to verify due to the fact that the materials delivered appear to be in Korean. Within **fourteen (14) days**, please provide Alta with a control set of identical materials in English.

Alta will be in touch shortly with regard to certain other representations in your correspondence and, accordingly, reserves all rights.

Sincerely yours,



Arthur S. Beeman

Exhibit I



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April 11, 2017

To: Arthur S. Beeman, Esq.
55 Second Street, 21st Floor
San Francisco, CA 94105-3470, USA

From: Lee & Ko
Hanjin Building, 63 Namdaemun-ro, Jung-gu, Seoul 04532, Korea
On behalf of LG Electronics, Inc.

Re: Alta Device's Requests Regarding NDAs with LG Electronics Inc.

VIA E-MAIL AND COURIER

Dear Mr. Beeman:

We are writing on behalf of LG Electronics Inc. ("LGE" or "We") in response to your letter dated February 16, 2017 ("Letter") directed to Ms. Kyungkeum Choi.

In your Letter, you requested the following: (1) inform Alta of the steps LGE undertook to unequivocally confirm that LGE gathered and returned all materials that it is obligated to return pursuant to Section 6 of the 2011 NDA and Section 5.2 of the 2014 NDA; (2) identify the number of pages withheld from return, the document that were returned that contain redactions, the nature of the material redacted, and an explanation of why materials regarding Alta's Confidential Information contain ancillary information "not privy to Alta"; and (3) provide Alta with a control set of identical material in English.

In furtherance of cooperation and good faith, LGE has assisted and is willing to assist in Alta's protection of its intellectual property and Confidential Information, and unequivocally did so by returning the documents and samples that We received and developed during discussions with Alta. In fact, LGE returned certain documents that were internally prepared even though it was not legally obligated to do so under Section 6 of the 2011 NDA, which provides that "[either] party may retain such of its documents as is necessary to enable it to comply with its document retention policies." This is a manifestation of LGE's willingness and best efforts to amicably resolve this matter.

Having said the above, We believe that your requests lack any legal or contractual grounds, and



not only impose an undue burden on LGE but also exceed the extent that is necessary for protecting Alta's legitimate intellectual property rights for the following reasons.

First, LGE has already made clear in its previous letters that LGE has returned all the documents and samples (including those that LGE was not required to return) received and developed under the 2011 and 2014 NDAs. The above is more than sufficient to fulfill LGE's obligations under the 2011 and 2014 NDAs regarding Confidential Information. Specifically, LGE is not obligated to inform Alta of the detailed steps that LGE undertook in gathering and returning the documents, nor is LGE obligated to explain to Alta the contents of the documents prepared by LGE or provide Alta with English translations of the returned documents.

Second, for the sake of protecting its own intellectual property, LGE will not and cannot provide its proprietary and/or confidential information to Alta. It is unreasonable that Alta, fully understanding the importance of intellectual property, requests that LGE provide LGE's proprietary and/or confidential information, including the content of redacted documents.

Finally and most importantly, LGE once again states LGE never used Alta's Confidential Information received for purposes other than those agreed between the parties under the 2011 and 2014 NDAs. Alta's requests are based on an unreasonable suspicion of LGE's encroachment of Alta's intellectual property, which has absolutely no substantive factual basis. Although We are willing to assist in relieving Alta's concerns of encroachment of its intellectual properties, We cannot be unreasonably burdened in doing so.

We hope that through this letter both Alta and LGE no longer find a need to invest valuable resources on an issue, raised based on unreasonable speculation. Instead, We would rather prefer to work with Alta towards building an amicable relationship for any possible collaboration in the future.

Moving forward, please direct all correspondences to Lee & Ko with attention to Mr. Kyunghoon Lee (email: kyunghoon.lee@leeko.com) and Mr. Sun Chang (email: sun.chang@leeko.com).

Best regards,

A handwritten signature in black ink that reads "Lee & Ko".

Lee & Ko